

At A Glance

## Cost of Capital/Return on Equity/Rate of Return

### Our Practice

Prices in regulated industries rely upon costs, which include the cost of capital as a core component. NERA has been at the forefront of issues concerning the cost of capital for regulated industries for over 40 years—ever since Alfred Kahn devoted an Appendix in his great work *The Economics of Regulation* to NERA’s Herman Roseman’s cost of capital work in the 1960s.<sup>1</sup>

The utility businesses have changed drastically over those 40 years, in structure and ownership, pricing and competitiveness. Throughout all of these changes, regulation has continued to play a key role in the protection of consumers who buy from the remaining “natural” monopolies—local distribution in gas and water, transmission and distribution in electricity and local service in telecommunications. For these regulated businesses around the world, the cost of capital remains an enduring issue—the base of regulated prices and a continuing subject of debate, concern and empirical investigation—in which NERA continues to play a key part.

### Key Areas of Expertise

#### Pursuit of Objectivity

NERA pursues the goal of objectivity in two ways: (1) by using those financial models and methods that permit the greatest objectivity; and (2) by making use of comparable company groups (also known as “proxy groups”) to draw more reliable conclusions about investors’ expectations. Practical financial modeling in a rate case setting should display two attributes: the models should be strictly forward-looking and they should be able to offer an objective way of dealing with the uncertainty that is inherent in gauging investors’ future expectations.

The forward-looking perspective is critical. Investors look toward the future when they demand compensation for the use of their money. Therefore, the cost of equity capital is a forward-looking concept. However, there are few ways to look into the future, particularly from the *investor’s* perspective.

Those strategies are generally indirect—we look at stock prices or interest rates to gauge these expectations. This indirection is precisely why the field of finance has developed models and methods such as the Discounted Cash Flow (DCF), Capital Asset Pricing Model (CAPM) and Risk Premium (RP). Those models use available information that *we can observe* to draw conclusions about *unobservable* investor expectations of the future.

#### Robust Financial Theories

Gauging investors’ future expectations involves an unavoidable element of uncertainty. There is no reliable way to learn today’s cost of equity capital for the utility in question. This indeed is the practical criterion that separates the usefulness of the most popular financial theories used in rate cases—the DCF and the CAPM. The DCF renders a cost of capital estimate for each company in a proxy group. Some might seem a bit high or low, but the individual company results have objective “measures of central tendency,” such as means and medians.

<sup>1</sup> Kahn, Alfred E., *The Economics of Regulation: Principles and Institutions*, John Wiley & Sons, Inc., New York (1970), Volume 1, Appendix A, pages 58-60.

The CAPM, on the other hand, while often seen by regulators, presents difficulties in application. The theory and techniques surrounding the CAPM, however, continue often to be useful as a check for other methods. CAPM is more widely used outside the U.S., where it is sometimes difficult to implement the DCF model.

### **Related Investigations**

For ratemaking purposes, the cost of equity capital goes hand in hand with the capital structure and cost of debt issues that are frequently addressed in NERA's evidence. Such investigations also attract many ancillary issues, such as the prudence of interest costs and the effect of particular utility policies (such as weather-normalized rates or multi-year settlements) on the cost of equity. NERA has addressed such issues many times when presenting and defending the commensurate cost of capital in rate cases.

## **Client Experience**

### **Electric Companies**

American Electric Power Texas Companies:

- Central Power & Light Company
- Southwest Electric Power Company
- West Texas Utilities Company

Atlantic City Electric Company  
Commonwealth Edison Company  
Duquesne Light Company  
Entergy Gulf States, Inc.  
Florida Power and Light Company  
Florida Power Corporation  
New York State Electric and Gas Corporation  
Pennsylvania Power and Light Company  
Pennsylvania Power Company  
Philadelphia Electric Company  
Portland General Electric Company  
Reliant Energy HL&P  
Rochester Gas and Electric Corporation  
Sierra Pacific Power Company  
Southwestern Public Service Company  
Texas-New Mexico Power Company  
United Illuminating Company  
Wallingford Energy LLC

### **US (and Canadian) Gas Companies**

Brooklyn Union Gas Company  
Canadian Western Gas Company  
Consolidated Gas Supply Corporation

Elizabethtown Gas Company  
Kansas Pipeline Partnership and Kansas Natural Partnership  
Philadelphia Electric Company - Gas Division  
Southwestern Virginia Gas Company  
Valley Resources, Inc.  
Wisconsin Gas Company

### **US Telecommunications and Water Companies**

China Telephone Company, Maine Telephone Company, Northland Telephone Company, Sidney Telephone Company, Standish Telephone Company  
Kearsarge Telephone Company  
Tipton Telephone Company  
Community Service Telephone Company  
Kearsarge, Chichester and Meriden Telephone Companies  
General Telephone Company of Ohio  
General Telephone Company of Pennsylvania

### **U.S. Law Firms**

Crowell & Moring, LLP  
Cullen & Dykman  
Foley & Lardner  
Huber, Lawrence and Abell  
Morgan Lewis & Bockius  
Preston, Gates & Ellis  
Preti Flaherty Beliveau Pachios & Haley  
Skadden, Arps, Meagher & Flom LLP  
Tonkon Torp, LLP  
Van Ness, Feldman

## **About NERA**

NERA Economic Consulting ([www.nera.com](http://www.nera.com)) is a global firm of experts dedicated to applying economic, finance, and quantitative principles to complex business and legal challenges. For over half a century, NERA's economists have been creating strategies, studies, reports, expert testimony, and policy recommendations for government authorities and the world's leading law firms and corporations. With its main office in New York City, NERA serves clients from more than 20 offices across North America, Europe, and Asia Pacific.

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